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February 13, 1996

EX PARTE SUBMISSION

Mr. William F. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: ET Docket No. 93-62

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Mr. Caton:

Today the undersigned and other representatives of the National Association of Broadcasters ("NAB"), including Mr. Kelly Williams, Ms. Karen Fullum and Ms. Sarah Wickham, met with representatives of the FCC's Mass Media Bureau and Office of Engineering and Technology. Among these FCC staff members were: Dr. Robert Cleveland and Messrs. Bruce Franca, Robert Greenberg and Keith Larson. Accompanying and supporting the NAB representatives was Mr. Jules Cohen, consulting engineer.

At this meeting there was a discussion of the issues involved in the Commission's RF radiation regulation rule making in the above-referenced docket. Distributed to those attending the meeting were copies of the attached paper. This paper outlines the matters addressed by the NAB representatives and Mr. Cohen.

An original and nine copies of this letter and its attachment are submitted today in conformance with the Commission's ex parte rules. If there are any questions concerning this matter, please contact the undersigned directly.

Best regards,

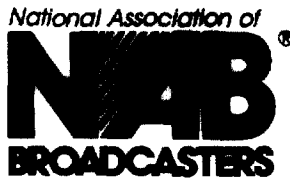
Barry D. Umansky

Attachment

cc: Dr. Robert Cleveland, OET
Bruce Franca, OET
Robert Greenberg, MMB
Keith Larson, MMB

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**ANSI/IEEE C95.1-1992 SHOULD BE SELECTED AS THE
FCC'S RF RADIATION GUIDELINE
[ET DOCKET NO. 93-62]**

- The public record illustrates almost universal consensus among experts in government, academia and industry that the Commission should adopt the ANSI/IEEE C95.1-1992 standard -- in its entirety and exclusively. Adoption of either the 1986 NCRP standard or a hybrid NCRP-ANSI exposure guideline, the latter proposed by a member of the EPA staff (rather than the EPA Administrator), was disfavored by a majority of experts submitting comments.
- ANSI/IEEE has become a transnational standard. It has been adopted by many federal agencies, including the Department of Defense, the Food and Drug Administration and OSHA, and is endorsed by international organizations such as NATO and CENELEC.
- The Commission has already adopted the ANSI/IEEE C95.1 - 1992 standard through rulemaking proceedings in the matter of personal communication services (see Section 24.52 of the FCC Rules and Regulations).
- The 1992 ANSI/IEEE standard is the most scientifically up-to-date guideline available and has widespread support from the mainstream scientific community. In contrast, comments in the record indicate that the 1986 NCRP exposure guideline:

(1) does not reflect the most current scientific information. Specifically, the database of scientific research on which the ANSI standard-setting committee relied is four years more recent than the database relied upon by NCRP.

(2) does not represent an accurate or diverse consensus of the mainstream scientific community. The ANSI committee comprised 120 members from over 14 separate scientific disciplines and employed an open process of participation. In contrast, the NCRP committee had a total of only six members (in addition, the committee had five advisory members and five consultants participating in its work) and limited participation to an invitation-only basis. The Chairman and three other members of the NCRP committee were also members of Subcommittee IV of IEEE SCC 28, as were five of the 10 additional NCRP committee members.

(3) incorporates inadequate definitions of exposure environments. While ANSI uses a two-tier criterion of “controlled” and “uncontrolled” exposure environments, a realistic tool for assessing and conforming exposure conditions, NCRP employs the vague, discretionary criterion of “worker” and “general public”. The ANSI approach, unlike NCRP, provides exposure criteria guidelines that protect people based on what they actually do, not who they are.

- ANSI/IEEE provides a flexible, scientifically sound framework for protecting humans from RF radiation exposure on an on-going basis.
 - ANSI is a continuing body which meets at six-month intervals and which also has on-going working groups. As such, the standard can be adapted to incorporate future research findings without diminishing the efficacy of the guideline.
 - Alternatively, the NCRP guideline is outdated and static. Moreover, the NCRP guideline is presently undergoing an extensive and lengthy 3 to 5-year revision process by a new committee constituted solely to revise the standard and which, like the original NCRP committee, will also cease to function.
- The revised NCRP guideline will not be eligible for consideration by the Commission, given the Congressionally-imposed 180-day deadline for the issuance of a Report and Order in this proceeding. (This deadline is contained in the newly-enacted Telecommunications Act.)
- Exclusive adoption of the ANSI/IEEE standard would, consistent with the FCC’s charter under 47 U.S.C. Sections 151, 157(a) and NEPA, encourage the continued development of innovative communications systems nation-wide, and provide a widely-endorsed, scientifically sound guideline that protects all people, in all environments, from excessive RF radiation exposure.
- ANSI/IEEE covers the frequency range from 3 kHz to 300 GHz, while NCRP covers only the range from 300 kHz to 100 GHz. While there is considerable agreement between ANSI and NCRP exposure guidelines, in the frequency ranges where they diverge ANSI is generally more protective than NCRP. For example:
 - The exposure standards of ANSI/IEEE and NCRP in the VHF portion of the RF spectrum from 30 to 300 MHz are identical. The exposure limits for the two standards at frequencies from 300 to 1500 MHz also increase at a similar rate.

- The standards have important differences in the upper regions of the spectrum (limited to surfaces of the body) where total exposure is more limited by ANSI. ANSI employs a declining time over which exposure is averaged (e.g. 5 seconds at 100 GHz and 0.16 second at 300 GHz), versus NCRP which limits occupational exposures to a fixed six-minute averaging time and general-population exposures to a 30-minute averaging time. As a result, ANSI allows less energy absorption over a large portion of the upper frequency region.
- In the low frequency range below 30 MHz, where uncapped electric field exposure has a potential to induce shock and burn, both standards cap permissible electric field exposure at the same level. The largest difference surrounds magnetic field exposure - which ANSI allows to rise and NCRP inexplicably caps at the same power density as for electric fields. High magnetic field strengths are not associated with shock or burn and ANSI permits higher magnetic field strengths in the absence of adverse consequences to human populations.
- ANSI/IEEE does not include a limitation for low-frequency modulation, an area in which conclusive biological effects data regarding human exposure do not exist. NCRP places limits on carrier frequencies modulated at depths of 50 % or more at frequencies between 3 and 100 Hz, a condition unlikely to be encountered by a human being, except for the briefest of intervals. This limit is of questionable value. Emitters with enough power to implicate human exposure concerns do not (and cannot) operate at such frequencies for anything other than short time periods.